

AMENDMENTS TO THE CLAIMS

Please amend the claims as shown below. A complete listing of the claims, including their current status, is set forth below.

1-68. (cancelled)

69. (New) A method of screening for a compound that increases cAMP levels in peripheral blood leukocytes, comprising:

(a) contacting a candidate compound with a G protein-coupled receptor (GPCR) that is present on the surface of a recombinant host cell or isolated membrane thereof, wherein said GPCR comprises an amino acid sequence that is at least 80% identical to the amino acid sequence of SEQ ID NO:82;

(b) determining if said candidate compound is an agonist of said GPCR; and

(c) determining if said agonist increases cAMP levels in a peripheral blood leukocyte.

70. (New) The method of claim 69, wherein said determining step (b) comprises: determining if said candidate compound is a partial agonist of said GPCR.

71. (New) The method of claim 69, wherein said determining step (b) and/or said determining step (c) comprises detecting cAMP.

72. (New) The method of claim 71, wherein said detecting cAMP employs ELISA using an anti-cAMP antibody.

73. (New) The method of claim 71, wherein the recombinant host cell comprises a reporter system comprising multiple cAMP responsive elements operably linked to a reporter gene.

74. (New) The method of claim 71, wherein said detecting cAMP comprises detecting an increase in intracellular cAMP accumulation.

75. (New) The method of claim 69, wherein said determining step (b) comprises using [³⁵S]GTPγS to monitor G protein coupling to a membrane comprising said GPCR.

76. (New) The method of claim 69, wherein said determining step (c) comprises: detecting a biological response produced by increasing cAMP levels in a peripheral blood leukocyte.

77. (New) The method of claim 69, wherein said GPCR comprises an amino acid sequence that is at least 95% identical to the amino acid sequence of SEQ ID NO:82.

78. (New) The method of claim 69, wherein said GPCR comprises an amino acid sequence that is at least 99% identical to the amino acid sequence of SEQ ID NO:82.

79. (New) The method of claim 69, wherein the GPCR comprises one or more of the following amino acid substitutions: P43A, K97N or I130F, relative to SEQ ID NO:82.

80. (New) The method of claim 69, wherein said GPCR is constitutively active.

81. (New) The method of claim 69, wherein the GPCR comprises the following amino acid substitution: I225K, relative to SEQ ID NO:82.

82. (New) The method of claim 69, wherein the method further comprises formulating said agonist as a pharmaceutical.

83. (New) The method of claim 69, wherein the GPCR forms part of a fusion protein with a G protein.

- 84. (New) The method of claim 69, wherein the host cell is a mammalian host cell.
- 85. (New) The method of claim 69, wherein the host cell is a yeast host cell.
- 86. (New) The method of claim 69, wherein the peripheral blood leukocyte is a human peripheral blood leukocyte.
- 87. (New) The method of claim 69, wherein the recombinant host cell comprises an expression vector which comprises a nucleic acid encoding said GPCR.